

IN THE CLAIMS

1. (Currently Amended) A scanning device having a differential analog transmission pair, the scanning device comprising:

an image capture component board, including:

an image capture component for receiving data in the form of optic signals, and transforming the optic signals into analog electric signals; and

a differential output driver coupled to the image capture component for transforming the analog electric signals into differential mode and outputting a differential analog electric signal; and

a main board coupled to the image capture component board, including: a differential input receiver for receiving the differential analog electric signal, and restoring the differential analog electric signal back to the analog electric signals signal.

2. (Currently Amended) The scanning device of claim 1, wherein the differential analog electric signal includes a non-phase reversal analog signal and a phase reversal signal.

3. (Currently Amended) The scanning device of claim 1, wherein the main board further includes:

an analog front coupled to the differential input receiver for transforming the analog electric signals signal into an analog front electric signal; and

an analog to digital A/D converter coupled to the analog front for converting the analog front electric signal into a digital signal and outputting the digital signal.

4. (Currently Amended) The scanning device of claim 1, wherein the main board mainboard further includes a clock signal generator for generating a plurality of clock signals to be provided to the image capture component for driving the image capture component same.

5. (Original) The scanning device of claim 1, wherein the image capture component includes a charge coupled device.

6. (Original) The scanning device of claim 1, wherein the image capture component includes a contact image sensor.

7. (Original) The scanning device of claim 1, wherein the image capture component includes a CMOS device.

8. (Currently Amended) A method for using a differential pair in a scanner, the method comprising the steps of:

receiving an optic signal representing scanned data, and transforming the optic signal same into analog electric signals;

transforming the analog electric signals into differential analog electric signals; and receiving the differential analog electric signals, and restoring the differential analog electric signals same back into analog electric signals.

9. (Currently Amended) The method of claim 8 further comprising:
transforming the analog electric signals signal into an analog front electric signal; and
converting the analog front electric signal into a digital signal using an analog to digital converter.

10. (Currently Amended) The method of claim 8, wherein the differential analog elcctric signals include signal includes a non-phase reversal analog signal and a phase reversal signal.

11. (Original) The method of claim 10, wherein the non-phase reversal analog signal and the phase reversal signal have phase reversing relationships with each other.

12. (Currently Amended) The method of claim 10, wherein the non-phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to an the analog electric signal's electric potential of the analog electric signals plus a bias electric potential.

13. (Currently Amended) The method of claim 10, wherein the phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to ~~an the analog electric signal's~~ electric potential of the analog electric signals minus a bias electric potential.

14. (New) An apparatus comprising:

means for receiving an optic signal representing scanned data, and transforming the optic signal into analog electric signals;

means for transforming the analog electric signals into differential analog electric signals; and

means for receiving the differential analog electric signals, and restoring the differential analog electric signals back into analog electric signals.

15. (New) The apparatus of claim 14 further comprising:

means for transforming the analog electric signals into an analog front electric signal; and

means for converting the analog front electric signal into a digital signal using an analog to digital converter.

16. (New) The apparatus of claim 14, wherein the differential analog electric signals include a non-phase reversal analog signal and a phase reversal signal.

17. (New) The apparatus of claim 16, wherein the non-phase reversal analog signal and the phase reversal signal have phase reversing relationships with each other.

18. (New) The apparatus of claim 16, wherein the non-phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to an electric potential of the analog electric signals plus a bias electric potential.

19. (New) The apparatus of claim 16, wherein the phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric

potential equal to an electric potential of the analog electric signals minus a bias electric potential.